



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

Albany, New York, Dudley Observatory.
Allegheny, Pennsylvania, Allegheny Observatory.
Armagh, Ireland, Armagh Observatory.
Berlin, Germany, Redaction des Berliner Jahrbuchs.
Berlin, Germany, Royal Observatory.
Cambridge, England, University Observatory.
Cape Town, Africa, Royal Observatory.
Christiania, Norway, University Observatory.
Cincinnati, Ohio, University Observatory.
Cordoba, Argentine Republic, National Observatory.
Dorpat, Russia, University Observatory.
Dublin, Ireland, Dunsink Observatory.
Dublin, Ireland, Royal Dublin Society.
Edinburgh, Scotland, Royal Observatory.
Geneva, Switzerland, Observatory.
Glasgow, Scotland, University Observatory.
Gotha, Germany, Ducal Observatory.
Goettingen, Germany, Royal Observatory.
Greenwich, England, Royal Observatory.
Hamburg, Germany, Observatory.
Helsingfors, Russia, University Observatory.
Kasan, Russia, University Observatory.
Kiel, Germany, University Observatory.
Koenigsberg, Germany, University Observatory.
La Plata, Argentine Republic, Observatory.
Leipzig, Germany, University Observatory.
Leyden, Holland, University Observatory.
Lisbon (Tapada), Portugal, Royal Observatory.
London, England, 26 Martin's Lane, British Astronomical Association.
London, England, British Museum.
London, England, Royal Astronomical Society.
London, England, 3 Verulam Bldgs., Gray's Inn, The Nautical Almanac.
Lund, Sweden, University Observatory.
Madison, Wisconsin, Washburn Observatory.
Madras, India, Observatory.
Madrid, Spain, Royal Observatory.
Marseilles, France, Observatory.
Melbourne, Victoria, Observatory.
Mexico, Mexico, Sociedad Cientifica "Antonio Alzate."
Milan, Italy, Royal Observatory.

Moscow, Russia, University Observatory.
Munich, Germany, Royal Observatory.
Naples, Italy, Royal Observatory.
New Haven, Connecticut, Yale University Observatory.
New York, New York, American Mathematical Society.
New York, New York, Columbia University Observatory.
Nice, France, Observatory.
Northfield, Minnesota, Carleton College Observatory.
Oxford, England, Radcliffe Observatory.
Oxford, England, University Observatory.
Paris, France, Bureau of Longitudes.
Paris, France, National Observatory.
Potsdam, Germany, Astrophysical Observatory.
Prague, Austro-Hungary, University Observatory.
Pulkowa, Russia, Imperial Observatory.
Rio de Janeiro, Brazil, Observatory.
Rome, Italy, Observatory of the Roman College.
Rome, Italy, Italian Spectroscopic Society.
Rome, Italy, Specula Vaticana.
San Francisco, California, California Academy of Sciences.
San Francisco, California, Technical Society of the Pacific Coast.
Stockholm, Sweden, University Observatory.
Strassburg, Germany, University Observatory.
Sydney, New South Wales, Observatory.
Tacubaya, Mexico, National Observatory.
Tokio, Japan, University Observatory.
Toronto, Canada, Astronomical and Physical Society of Toronto.
Toulouse, France, Observatory.
Turin, Italy, Observatory.
University Park, Colorado, Chamberlin Observatory.
University of Virginia, Virginia, McCormick Observatory.
Upsala, Sweden, University Observatory.
Vienna, Austria, Imperial Observatory.
Vienna (Ottakring), Austria, Von Kuffner's Observatory.
Washington, District of Columbia, Library of Congress.
Washington, District of Columbia, National Academy of Sciences.
Washington, District of Columbia, Naval Observatory.
Washington, District of Columbia, Smithsonian Institution.
Washington, District of Columbia, The American Ephemeris.
Washington, District of Columbia, U. S. Coast and Geodetic Survey.
William's Bay, Wisconsin, Yerkes Observatory.
Zurich, Switzerland, Observatory.

EXCHANGES.

Astrophysical Journal, Chicago, Illinois.
Sirius, Cologne, Germany.
The Observatory, Greenwich, England.

FOR REVIEW.

[See *Publications* A. S. P., Vol. VIII, p. 101.]*The Call*, San Francisco, California.*The Chronicle*, San Francisco, California.*The Examiner*, San Francisco, California.*The Mercury*, San José, California.*The Overland Monthly*, San Francisco, California.*The Record-Union*, Sacramento, California.*The Times*, Los Angeles, California.*The Tribune*, Oakland, California.ON THE INFLUENCE OF CARBONIC ACID IN THE
AIR UPON THE TEMPERATURE OF THE EARTH.

BY PROFESSOR S. ARRHENIUS.

[Abstract by EDWARD S. HOLDEN.]

[NOTE.—The following very brief and inadequate notice of an important paper presented to the Royal Swedish Academy of Sciences in December, 1895, and printed in the *Philosophical Magazine*, Volume XLI, pages 237-276, is given here chiefly for the purpose of directing attention to an entirely novel and simple explanation of the vexed questions relating to the Earth's temperature in past times and to the cause of the Glacial Epoch. It is impossible in the present place to give more than the shortest abstract.—E. S. H.]

I. Introduction: Observations of LANGLEY on Atmospheric Absorption.

“A great deal has been written on the influence of the absorption of the atmosphere upon the climate. TYNDALL,* in particular, has pointed out the enormous importance of this question. To him it was chiefly the diurnal and annual variations of the temperature that were lessened by this circumstance. Another side of the question, that has long attracted the attention of physicists, is this: Is the mean temperature of the ground in any way influenced by the presence of heat-absorbing gases in the atmosphere? FOURIER maintained that the atmosphere acts like the glass of a hot-house, because it lets through the light-rays of the Sun, but retains the dark-rays from the ground. This idea was elaborated by POUILLET; and LANGLEY was by some of his researches led to the view that “the temperature of the Earth under direct sunshine, even though our atmosphere were present, as now, would probably fall to -200° C., if that atmosphere did

* The author's references to the original authorities are, in general, omitted here.—E. S. H.